



UNITED STATES DEPARTMENT OF COMMERCE

Patent and Trademark Office

Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

CH

CH

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
-----------------	-------------	----------------------	---------------------

09/049, 121 03/27/98 CLARK

R 2119-107P

002292 MMC2/0213  
BIRCH STEWART KOLASCH & BIRCH  
8110 GATEHOUSE ROAD  
SUITE 500 EAST  
FALLS CHURCH VA 22042

EXAMINER

PHAN, J

ART UNIT

PAPER NUMBER

2872

DATE MAILED:

02/13/01

22

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

<b>Office Action Summary</b>	Application No. <b>09/049,121</b>	Applicant(s) <b>Clark et al</b>
	Examiner <b>James Phan</b>	Group Art Unit <b>2872</b>

Responsive to communication(s) filed on \_\_\_\_\_.

This action is **FINAL**.

Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire three month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

#### Disposition of Claims

Claim(s) 1-26 and 28-44 is/are pending in the application.

Of the above, claim(s) 6-8, 11, 16-20, 30-32, 35, and 40-42 is/are withdrawn from consideration.

Claim(s) 2, 21, 39, and 43 is/are allowed.

Claim(s) 1, 3, 4, 12, 13, 22-26, 28, 36, 37, and 44 is/are rejected.

Claim(s) 5, 9, 10, 14, 15, 29, 33, 34, and 38 is/are objected to.

Claims \_\_\_\_\_ are subject to restriction or election requirement.

#### Application Papers

See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

The proposed drawing correction, filed on \_\_\_\_\_ is  approved  disapproved.

The specification is objected to by the Examiner.

The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. § 119

Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

All  Some\*  None of the CERTIFIED copies of the priority documents have been

received.

received in Application No. (Series Code/Serial Number) \_\_\_\_\_.

received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_.

Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

#### Attachment(s)

Notice of References Cited, PTO-892

Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_

Interview Summary, PTO-413

Notice of Draftsperson's Patent Drawing Review, PTO-948

Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Art Unit: 2872

The indicated allowability of claims 1, 3-4, 6-8, 11-13, 16-18, 28 are withdrawn in view of the prior art filed 8/16/99. Non-elected claims including claims 6-8, 11 and 16-18 are no longer rejoined by the examiner. Rejections based on the newly cited reference(s) follow.

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3-4, 12-13, 22-26, 28, 36-37 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Selvakumar et al in view of La Fiandra.

Selvakumar et al discloses a vertical electrostatic comb drive which comprises a first array of stationary elements (fixed comb beams) and a second array of moving elements (moving beams). The vertical electrostatic comb drive further comprises a layer (MP) covering top of moving elements of the second array. Selvakumar et al does not disclose a reflective surface attached to the comb drive. However, Selvakumar et al discloses that the vertical electrostatic comb drive "can find use in a variety of applications where large deflection of a microstructure away from the wafer surface is needed" (see the teaching in the conclusion in column 1, page 6).

Also, La Fiandra discloses a deformable mirror actuator which comprises vertical comb drive and

Art Unit: 2872

a reflective surface attached to the comb drive so that light beam reflected from the reflective surface is controllably positioned. Thus, it would have been obvious to one skilled in the art to attach a reflective surface to the vertical electrostatic comb drive in Selvakumar so as to form a device for use in optical application such as a laser beam positioning device or laser beam deflecting device.

***Allowable Subject Matter***

3. Claims 5,9-10, 14-15, 29, 33-34, and 38 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

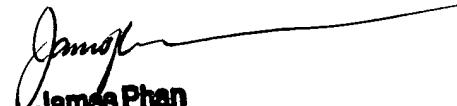
Claims 2, 21, 39 and 43 are allowed.

***Conclusion***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Phan whose telephone number is (703) 308-4810. The fax phone number for this Group is (703) 308-7722.

Phan, J.

Feb. 10, 2001

  
James Phan  
Primary Examiner